

ABSTRACT

The present invention relates to a sampling device for obtaining samples of internal body substances in the digestive system of humans or animals. The sampling device has the shape of a swallowable capsule (2) which allows a sample of the body substance (26) to enter the capsule through an inlet opening (18) which is opened in a predetermined position of the digestive tract following contact with the body substance to be collected. The capsule (2) comprises a capsule wall (3) comprising said inlet opening (18), which initially is sealed and, when the patient has swallowed the capsule (2), is opened in said predetermined position following contact with the body substance to be collected, an inner chamber (5), defined by said capsule wall (3) and disposed to preserve a vacuum or substantial under pressure when the inlet opening (18) is sealed, and a blocking member (12) disposed in the inner chamber (5) adjacent to the inlet opening (18) in the capsule wall (3). The blocking member (12) is elastic and has a configuration, such that, when the inlet opening (18) has been opened following contact with said body substance, the blocking member (12) has a flow permitting configuration which admits a flow of body substance into the inner chamber (5) as long as there is a pressure difference between the inner chamber (5) and the external environment of the capsule (2) and a flow preventing configuration which blocks the inlet opening (18) from the inside of the chamber (5) when said pressure difference has been equalised by the flow of body substance into the capsule (2).

The invention also relates to a sampling method for obtaining samples of internal body substances and a method for producing the sampling device.